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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Glenn Mackal and Lyman W. Fawcett, Jr.
SERIAL NUMBER: 10/681,580
FILED: October 6, 2003
FOR: Bobbin for Automatic Inflator
EXAMINER: K. Bomberg
GROUP ART UNIT: 3754
ATTORNEY DOCKET NO. 380804.00116

Commissioner for Patents
Mail Stop: Appeal
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

APPELLANT'S SUBSTITUTE APPEAL BRIEF

This Substitute Appeal Brief is in response to the Notification of Non-Compliant Appeal Brief dated October 12, 2005 (and the Final Rejection dated November 16, 2004 to which a Notice of Appeal was filed April 18, 2005).

1. REAL PARTY IN INTEREST

The real party in interest is applicant's assignee, Halkey-Roberts Corporation, having a principal place of business at: 11600 Dr. M L King, Jr. Street, N., St. Petersburg, Florida, United States of America.

2. RELATED APPEALS AND INTERFERENCES

Upon information and belief, there are no other appeals or interferences that will directly affect or be directly affected by or having a bearing on the Board's decision in this pending Appeal.

3. STATUS OF SPECIFICATION AND CLAIMS

Objection to Specification

There are no objections to the specification.

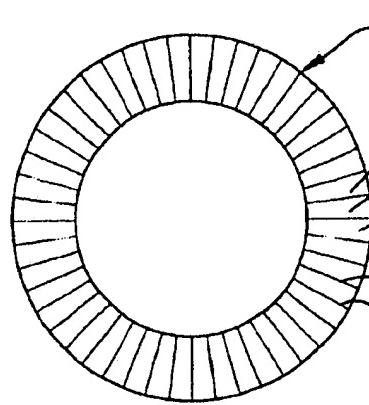
In the Claims

Claims 1-3, 5-6 and 9 are pending and appealed. Claims 4, 7, 8 and 10-17 are withdrawn from consideration.

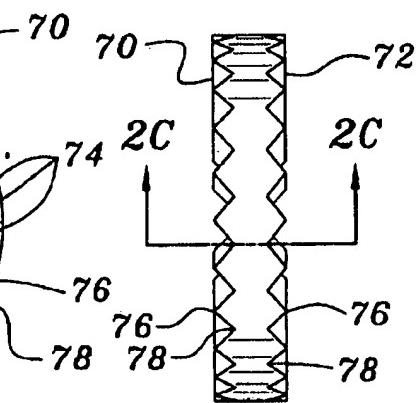
4. STATUS OF AMENDMENTS

This is a divisional application of U.S. Patent 6,705,488 filed with original Claims 1-19. Claims 1-17. In the Office Action dated September 2, 2004, the Examiner imposed a restriction requirement asserting that Group I Claims 1-9 were drawn to an inflator and Group II Claims 10-19 were drawn to a pill for an inflator were separate and distinct. The Examiner also required election among six species of the six embodiments of the pill. In response to the September 2, 2004 restriction requirement, Applicant elected with traverse Group I and Species of Figs. 2A-2C and identified Claims 1-3, 5-6 and 9 readable thereon. Applicant elected with traverse because any meaningful search would cover all of the species and there would be no added burden on the Office to examine all of them. Compare the similarities between Species 1 of Figs. 2A-2C versus Species 2 of Figs. 3A-3C:

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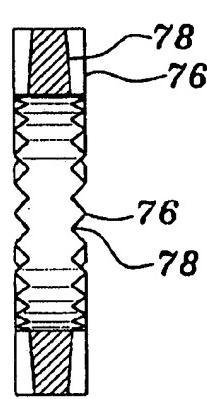
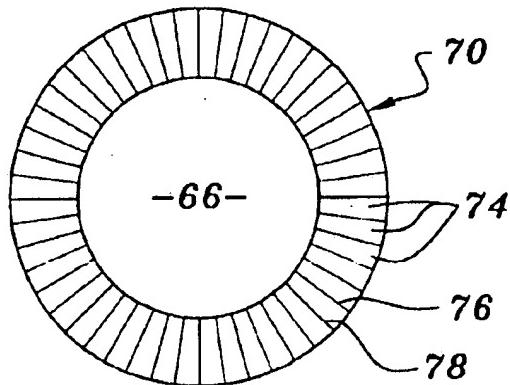


FIG. 2A

FIG. 2B

FIG. 2C

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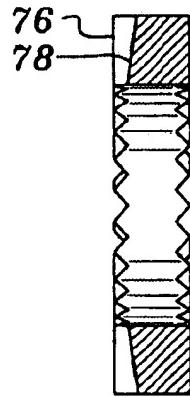
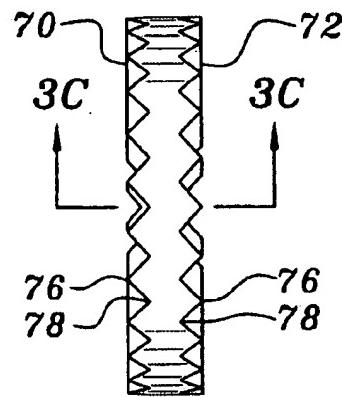


FIG. 3A

FIG. 3B

FIG. 3C

In the first Office Action on the merits, the Examiner made the restriction requirement final claiming that Applicants' "argument is a conclusory statement unsupported by evidence or fact".¹ The Examiner then rejected Claims 1-3, 5-6 and 9 as being anticipated by Hooberman. Worst, the Examiner made the Section 102(b) rejection final, asserting that as a divisional, "all of the claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they have been entered in the earlier application."

In their Amendment B, the finality of the rejection was requested to be withdrawn, but was not. Specifically, Applicants argued:

"Applicant respectfully requests the withdrawing of the finality of the subject Office Action since the earlier application was also subject to a restriction requirement and the claims examined on the merits in the earlier application were not the ones at issue in this application. Since the claims of both the earlier application and the subject application were subject to a restriction requirement, they are by definition patentably distinct and are not drawn to the same invention."

In their Amendment B, Applicants sought to amend Claim 1 in accordance with the Specification to clarify the upper and lower "surfaces" of their dissolvable pills with the undulation extending parallel thereto in order to distinguish Hooberman's axial surface. In an April 15, 2005 Advisory Action, the Examiner refused to enter their Amendment B, citing "they raise new issues that would

¹ Unfortunately, as has seemingly become so common, similar restriction requirements were made in the parent application and if continued as in this divisional application, will result in the unnecessary expense in prosecuting each embodiment as separate divisionals.

require further consideration and/or search." Applicant then filed a Notice of Appeal on April 18, 2005.

5. SUMMARY OF CLAIMED SUBJECT MATTER

The subject invention in its preferred embodiment is an improved pill of a bobbin for a water-activated automatic inflator that is less susceptible to humid weather conditions that may otherwise prematurely activate the automatic inflator in non-emergency situations. The pill of the bobbin of the invention comprises at least one surface having an undulating configuration (page 8, lines 7-9). The undulating surface configuration increases the strength of the bobbin pill to hold-back the spring-loaded actuator pin and increases the surface area to enhance dissolving once exposed to water (page 8, lines 9-11). In the elected-with-traverse Species of Figs. 2A-2C, the undulations are out of phase (page 15, lines 17 and page 16 lines 5-21) whereas the non-elected Species of Fig. 3A-3C, the undulations are in-phase (page 15, lines 18-21 through page 16, lines 1-4).

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether Claims 1-3, 5-6 and 9 are patentable over Hooberman (5,592,962) under 35 U.S.C. 102(b).

Specifically, with regard to Claims 1, 6-7 and 9, the Examiner stated in the final Office Action with respect to Fig. 1A that "Hooberman teaches of an automatic inflator comprising a body (24, 32) for receiving a dissolvable annular pill (28, 30) including an upper surface (annular surface facing) and a lower surface (annular surface axially opposed), the upper surface having a radially extending undulating

configuration (note radially concentrically castellated inner portion) according to the claims."

The Examiner stated with regard to Claim 2, "The castellated inner portion has peaks and troughs."

The Examiner stated with regard to Claim 3, "as seen in Fig. 1A the castellated inner portion extends through the pill to the proximal surface and are therefore on both surfaces of the pill."

The Examiner stated with regard to Claim 5, "Although particular structures of Hooberman's pill corresponding to the claim limitations have been pointed out for argument's sake, the pill itself is not actually being claimed. As per claim 1, the claim is directed to an automatic inflator comprising a body for receiving a dissolvable pill and not to the combination of an inflator and pill. The inflator of Hooberman is capable of accommodating such a pill and therefore meets the claims. Further, even if the pill were to be positively recited in combination with the inflator, the applicant has failed to identify any criticality of the undulations being in or out of phase and the limitation would therefore fail to patentably define over the prior art.

7. ARGUMENT

Claim 1 includes specific language directed to the upper and lower surfaces of the dissolvable pill, to wit: "dissolvable pill including an upper surface and a lower surface, at least one of said surfaces including an undulating configuration." Claim 2 specifies that the undulations include peaks and troughs. Claim 3 specifies that

both surfaces 72 and 74 include the peak and trough undulations. Claim 5 specifies that the peaks and trough undulations are out of phase with each other. Claim 6 specifies that the undulations extend radially.

Consistent with the Specification, Applicants contend that the "surfaces" language of Claim 1 should be interpreted to mean the upper and lower surfaces of the pill labeled by reference numerals 72 and 74 in which the undulations 74 are formed. Seeking to apply Hooberman, the Examiner contends that castellations formed in the inner surface of an axial hole (i.e., the hole's lumen) in the pill may constitute the undulations formed in the upper or the lower surface, and therefore anticipate Claim 1.

It is axiomatic that disputed claim terms must be interpreted by a person skilled in the art in light of the specification, the balance of the claims, and the prosecution history. *Phillips v. AWH Corp*, Fed. Cir., Nos. 03-1266, 03-1286, 7/12/05. The Examiner's contention that the castellations formed in the inner surface of an axial hole (i.e., the hole's lumen) in the pill may constitute the undulations formed in the upper or lower surface is contrary to the meaning of the terms of Claim 1 when interpreted by a person skilled in the art in light of the Specification and in light of the balance of the claims.

Specifically, to a person skilled in the art, the upper and lower surface of a disk with a center hole would mean precisely that, the upper and lower surface, and would not ever be interpreted to mean the lumen of the hole or the outside cylindrical surface of the disk. Further, a person skilled in the art would interpret

undulations formed in the upper or lower surface to mean precisely that, and would not ever be interpreted to mean undulations formed in the hole's lumen. By analogy, undulations formed on the surface of an ocean would simply mean the ocean's waves. In accord is the Specification wherein it is explained that the undulating surface provides strength to hold back the spring loaded actuator pin yet increases the surface area to enhance dissolving once exposed to water.

The Examiner's contention that the castellations formed in the inner surface of an axial hole (i.e., the hole's lumen) in the pill may constitute the undulations formed in the upper or lower surface is contrary to the Specification since it is the upper and lower surfaces that are rapidly exposed to water once the inflator is submerged – not the lumen nor the outer cylindrical surface! Therefore, the undulations formed in the lumen (or in the outer cylindrical surface) would not serve provide strength to hold back the spring loaded actuator pin nor increase the surface area to enhance dissolving once exposed to water.

Applicants respectfully urge that when the language is properly construed by a person skilled in the art in light of the Specification, Claim 1 is not anticipated by Hooberman.

Claim 2 that calls for the undulations including peaks and troughs further clarifies that the undulations rise and fall above the surface (e.g., as in an ocean wave). Therefore, even if the Examiner's contention that the castellations formed in the inner surface of an axial hole (i.e., the hole's lumen) in the pill may constitute the undulations formed in the upper or lower surface is adopted by the Board and

Claim 1 is found to be anticipated, Claim 2 still is not anticipated because it is specifically limited to undulations with peaks and troughs. Specifically, adopting the Examiner's contention for the sake of argument and assuming *arguendo* that the castellated lumen of Hooberman viewed from the upper or lower surface of the pill constitutes troughs, they would never be regarded as constituting peaks.

Hence, Claim 2 is not anticipated by Hooberman.

Claim 3 calls for both the upper and lower surfaces to include undulations. Adopting the Examiner's interpretation for the castellated lumen of Hooberman, would correspondingly require its outer cylindrical surface to also include an undulating configuration. Yet Hooberman's outer cylindrical surface of its dissolvable ring 30 is covered by its hollowed ring 38. Therefore, assuming *arguendo* that the Examiner's contention with regard to the castellated lumen is adopted, Hooberman still would not anticipate Claim 3 since it fails to show undulations on both its lumen and its outer cylindrical surface.

Claim 5 recites that the undulations on the upper and lower surfaces are out of phase with each other. As the term implies, the undulations being out of phase means that there are two undulations - one for the upper surface and one for the lower surface. The Examiner's contention with regard to the castellated lumen is therefore misplaced since the castellated lumen would include a single undulation that is at most inherently "in phase" with itself (e.g., whereas it might be said that a single sinusoidal wave is inherently in phase with itself, it could only be "out of

phase" when compared a separately distinct sinusoidal wave). Hence, Claim 5 is not anticipated by Hooberman.

Claim 6 requires the undulations to extend radially as opposed to concentrically as called for in cancelled Claim 7. Compare the radial undulations of Figs. 2, 3 & 4 with the concentric undulations of Fig. 5. Assuming *arguendo* that the castellated lumen of Hooberman viewed from the upper or lower surface of the pill constitutes undulations, they still would not extend radially. At most one could argue that they extend concentrically. Hence, Claim 6 is not anticipated by Hooberman.

Claim 9 depends from Claim 1 and calls for an annular pill with a center hole. The allowability of Claim 9 rises or falls with the allowability of Claim 1. Hence no further comment regarding Claim 9 is believed to be necessary.

Finally, the Examiner contends that the dissolvable pill is not positively claims and therefore the pending claims are merely directed to a generic automatic inflator, thereby anticipated by Hooberman. Applicants respectfully disagree because the pill is indeed positively claimed. As support, the Board's attention is directed to the allowed Claim 1 of the application's parent, U.S. 6,705,488, to wit: "An automatic inflator comprising a body for receiving a dissolvable pill, said dissolvable pill including an upper surface and a lower surface, at least one of said surfaces including an undulating configuration comprising a double frustro-conical cross sectional configuration, wherein said pill comprises an annular pill with a center hole and wherein said frustro-conical cross sectional configuration comprises

thicker outer and inner edges." In other words, with a similar format, Claim 1 of Patent '488 was interpreted to positively recite a pill, and so do the pending claims of the subject application.

8. CLAIMS APPENDIX

1. An automatic inflator comprising a body for receiving a dissolvable pill, said dissolvable pill including an upper surface and a lower surface, at least one of said surfaces including an undulating configuration extending parallel to a plane of said surface.

2. The automatic inflator as set forth in Claim 1, wherein said undulating configuration includes peaks and troughs.

3. The automatic inflator as set forth in Claim 2, wherein both said surfaces include said undulating configurations.

4. (withdrawn)

5. The automatic inflator as set forth in Claim 3, wherein said undulating configurations are aligned to be out of phase with each other.

6. The automatic inflator as set forth in Claim 1, wherein said undulations extend radially.

7. (withdrawn)

8. (withdrawn)

9. The automatic inflator as set forth in Claim 1, wherein said automatic inflator comprises an annular pill with a center hole.

10. (withdrawn)

11. (withdrawn)

12. (withdrawn)

13. (withdrawn)

14. (withdrawn)

15. (withdrawn)

16. (withdrawn)

17. (withdrawn)

9. **EVIDENCE APPENDIX**

Upon information and belief, there is no evidence related to this case.

10. **RELATED PROCEEDINGS APPENDIX**

Upon information and belief, there are no related proceedings to this application.

CONCLUSION

Applicant, through its undersigned attorney, requests oral argument to more fully explain the claimed invention with the Board and amplify the distinctions discussed above. It is respectfully urged that the Examiner's rejections of the Claims are without proper foundation as a matter of law. Reversal of the rejections is respectfully requested.

Respectfully submitted,



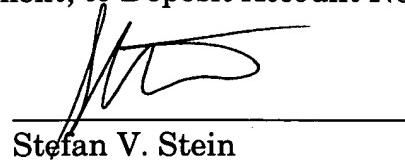
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CERTIFICATE OF MAILING

I HEREBY CERTIFY that the foregoing Appeal Brief was placed in an envelope and mailed via U.S. Express Mail (No. ER480244535US), postage prepaid

to: Mail Stop Appeal Brief – Patent, Commissioner for Patents, P.O. Box 1450,
Alexandria, Virginia 22313-1450 on this the 14th day of November, 2005.

The Commissioner is hereby authorized to charge any additional fees which
may be required at any time during the prosecution of this application without
specific authorization, or credit any overpayment, to Deposit Account No. 50-1667.



Stefan V. Stein

cc: Halkey-Roberts Corporation
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